

s u m m a r y

The Study Team narrowed the management options for the proposed Ice Age Floods region to four alternatives. All would involve public-private partnerships:

Local/State Designation:

1. No Action—continued management at the local level.
2. Coordinated Effort—creation of a Quad-State Commission for coordination and an Interagency Technical Committee representing federal, tribal, and state agencies to assist Commission staff.

Federal Designation:

3. National Geologic Trail—designating the Floods pathways as a unit of the National Park System, with an Interagency Technical Committee representing the federal, tribal, and state agencies and a Trail Advisory Committee to assist the Trail Superintendent and staff.
4. National Geologic Region—formal designation of the region Floods pathways with management under a Congressionally authorized Commission and an Interagency Technical Committee representing federal, tribal, and state agencies to assist Commission staff.

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MANAGEMENT OPTIONS

1. Introduction

The National Park Service's *Criteria for Parklands* defines the framework in which "Management Options" should be considered. The section on "Management Options" states:

Alternatives to National Park Service management might adequately protect resources even if they are significant, suitable, and feasible additions to the System. Studies of potential new park units evaluate management alternatives that may include continued management by state or local governments, Indian tribes, the private sector, or other federal agencies, technical or financial assistance from established programs or special projects; management by others as a designated national natural landmark, a national wild and scenic river, a national trail, a biosphere reserve, a state or local park, or some other specially designated and protected area, or cooperative management between the National Park Service

and other entities [emphasis added]. Alternatives involving other federal agencies include designation of federal lands as wilderness, areas of critical environmental concern, national conservation areas, national recreation areas, marine or estuarine sanctuaries, research natural areas, and national wildlife refuges. Additions to the National Park System will not usually be recommended if another arrangement can provide adequate protection and opportunity for public enjoyment.

In analyzing various management approaches for the Ice Age Floods region, it became obvious that a traditional National Park or Monument designation with a defined boundary, and management through a Park



Management Options

Superintendent and staff, was inappropriate. The scale of the Floods region and the extent of private lands within the region are simply too big an obstacle for such an approach. This analysis was fully supported and affirmed in meetings with members of the Ice Age Floods Study Team. The sentiment of the Study Team was that the Ice Age Floods region not be considered as a traditional unit of the National Park System, but instead be considered for a management category involving a more cooperative approach.

After studying the various options for management, the Study Team suggested that the National Park Service have a major role in the project. They agreed that NPS should focus primarily on assisting in interagency coordination,

taking a lead role in overall interpretation, and providing general technical assistance for the Floods region.

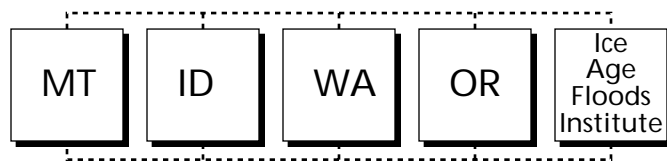
The proposed Management Options reflect the need for a coordinated approach that stresses cooperation between federal land management agencies, state and local governments, and the private sector.

Common to all the options is the involvement of the Ice Age Floods Institute, whose participation brings a wealth of professional knowledge and experience. Additionally, Options 2, 3, and 4 involve an Interagency Technical Committee that would recommend solutions to technical problems and represent the professional side of their respective agencies.

2. Management Options

Local/State Designations

option 1 No Action

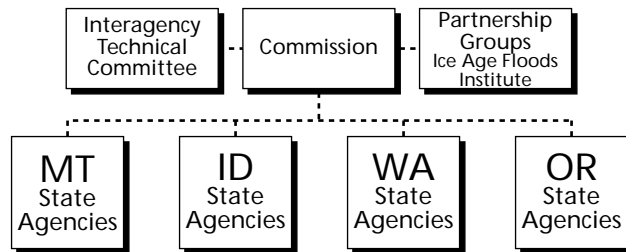


Option 1—Existing Conditions (no congressional action or overall planning)—Continued separate management by federal, state, local agencies and private sector, with no national or multistate involvement.

- a. **Concept:** The land management agencies, state Departments of Transportation, State Parks, and local agencies would continue to have the option to develop their own Floods-related interpretive programs and facilities.
- b. **Intergovernmental Agreements:** Intergovernmental agreements would be at the discretion of individual agencies.
- c. **Landownership:** There would be no changes in the landownership.
- d. **Acquisition Costs:** There would be no acquisition costs.
- e. **Staff and Development Costs:** Staff and development costs would be the responsibility of each agency.



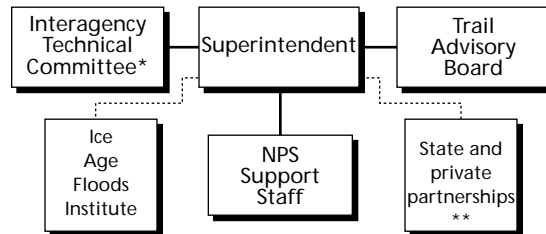
option 2
Quad-State Commission



Option 2—Quad-State Cooperation—The four states (Montana, Idaho, Washington, and Oregon) would create a Quad-State Commission for management and designate state tour routes.

- a. **Concept:** The four states would combine forces to develop a four-state compact that would create a commission for coordinating planning, management, and interpretation along the route of the Floods. This approach is based upon an understanding that all four states would have a mutual interest in developing a comprehensive interpretive tour route along the Floods pathways.
- b. **Management:** Through a written compact authorized by the state legislatures of Montana, Idaho, Washington, and Oregon, a quad-state commission would be formed to oversee the development and operation of an interpretive tour route. Appointments to the Commission would be made by the governors of each of the four states from nominations submitted by tribes, counties, and municipal governments within the region.
- c. **Intergovernmental Agreements:** The Quad-State compact would authorize the Commission to enter into agreements with federal land management agencies, state and local governmental agencies, and the private sector in order to create a comprehensive interpretive tour route. Funding for development, operations, and maintenance of the interpretive program and facilities could be from local and state appropriations. Private sector support may also be available.
- d. **Landownership:** There would be no changes in landownership; although, it would be appropriate to consider acquiring small parcels of land for interpretive pullouts.
- e. **Acquisition Costs:** There could be minor costs for acquisition of land for interpretive pullouts by local or state government entities.
- f. **Staff and Development Costs:** Some of the development cost for any additional staff or facilities could be borne by federal and state appropriations, as well as private sources. Operational funds would largely be a state expense.

option 3 National Geologic Trail



*USFS
USGS
BLM
BOR
USF&WS
Tribes

**States
Tribes
Counties
Land owners
Business
Nonprofits

Federal Designations (Congressional authorization would be required)

Option 3—National Geologic Trail—This option names a newly established trail designation as part of the National Trail system. This trail would be managed by a National Park Service Superintendent with the necessary support staff. Assistance would come from a trail advisory board, an interagency technical committee and the nonprofit Ice Age Floods Institute.

- a. **Concept:** Under this management option, Congress would authorize the establishment of an Ice Age Floods National Geologic Trail as a component of the National Trails System under a new classification of Natural History Trails. This trail would be the first of its kind in the nation. The Ice Age Floods National Geologic Trail would in essence be the national designation of the Floods Pathways tour route. In some instances, non-motorized trails and water trails could link to certain Floods features.
- b. **Management:** The Geologic Trail would be a unit of the National Park system, managed by a Superintendent and small support staff. NPS would be responsible for overall trail management and would coordinate interpretive and educational approaches to telling the story of the Ice Age Floods along the Floods Pathways. NPS emphasis would be on developing a coordinated interpretation, education, and resource stewardship effort among public agencies having Floods features on their lands. A comprehensive management plan would need to be prepared to help provide guidance for future management and public use of the trail.

Coordination would be sought among state and federal agencies having an interest in the Ice Age Floods. This assistance would be formalized through the formation of an Interagency Technical Committee (IAC). The IAC would be composed of individuals representing state, tribal, and federal agencies; these individuals would have an expertise in geology, interpretation, education, tourism, resource management, or related fields. The IAC would be expected to augment Trail staff expertise in a variety of areas.



The superintendent would be aided by an Advisory Board comprised of representatives appointed from the various public land management agencies, local, state, and tribal governments, and interested nonprofit organizations and private citizens. Their focus would be to assist in the operation of the Geologic Trail.

The Ice Age Floods Institute would plan an important role in the operation and development of a National Geologic Trail. Among other functions, the Institute would seek out supplemental private funding support for operation and development of the trail. The Institute would also play a key role as an advocate for educational programming, and would work to promote tourism and economic opportunities along the Trail.

- c. **Intergovernmental Agreements:** The National Park Service would enter into written agreements with state, tribal, and federal land managing agencies within the Floods region. This agreement would articulate how each would participate in the project and would provide a formal framework for coordination. The agreement would define roles and responsibilities on matters related to education and interpretation, resource management, visitor facility development and operation, and scientific research. Partnership agreements could be formed with local governments and private sector entities to aid in the management and operation of the National Geologic Trail.
- d. **Landownership:** It is recommended that the NPS not be given any authority by Congress to acquire land as part of its management responsibilities for the National Geologic Trail. Local or state governments and nonprofit organizations may acquire small parcels of land from willing private owners for improvements such as roadside pullouts and wayside exhibits where public highway right-of-way proves inadequate.
- e. **Acquisition Costs:** There could be minor costs for acquisition of land for interpretive pullouts by local or state government entities.

- f. **Staff and Development Costs:** Under this option, the National Park Service would be expected to fund the operational cost of the Trail Superintendent and staff, as well as routine office and travel expenses. However, the successful development, maintenance, and operation of the Trail and associated facilities and programs would require funding support from a variety of both public and private resources. This support would include funding for such things as interpretive highway or trailhead wayside exhibits, information kiosks, visitor centers and contact facilities, trail brochures, and educational program media and development.

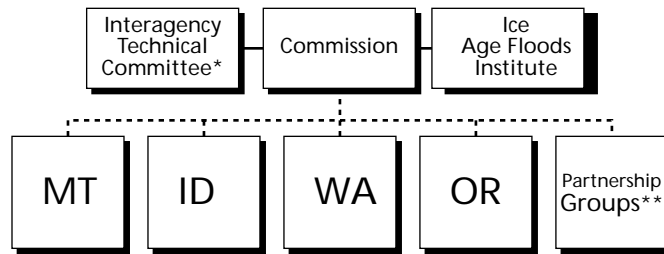
Initial funding for developing trail facilities identified through the comprehensive management planning process would be a joint responsibility of the NPS and other partner agencies at the state and federal level. Private sector organizations could provide support wherever appropriate. Potential funding sources such as TEA-21 enhancement funds and private sector support leveraged through the Ice Age Floods Institute could also be explored.

The federal share of costs estimated to implement this option is as follows:

- Estimated annual operating costs
(NPS staff and office support) \$500,000
- Estimated capitol development costs
(phased over several years) \$8 to \$12 million



option 4 National Geologic Region



Sample of State Participation



*NPS
USFS
USGS
BLM
BOR
USF&WS
Tribes
FHA
State agencies
Universities

**Private sector
Communities
Land owners
Business
Nonprofits

Option 4—National Geologic Region—This alternative would result in a newly designated area encompassing parts of four states that share the geologic history of the Ice Age Floods. A Floods Pathway tour route would be established to view Floods features. The project would be managed by a Commission with support staff and a broad-based partnership among numerous public and private entities.

- a. **Concept:** Under this management option, Congress would authorize the establishment of an Ice Age Floods National Geologic Region and Floods Pathways interpretive route. It would be managed by a Commission and supported by an executive director and support staff. Assistance would be provided by a trail advisory board, an interagency technical committee, and the nonprofit Ice Age Floods Institute. As with Management Option 3, the National Geologic Region would include a Floods Pathways auto tour route that would follow existing public roads and highways. In some instances, non-motorized trails could link to certain Floods features.
- b. **Management:** The Floods Region and Floods Pathways tour route system would be managed by an Ice Age Floods Regional Commission appointed by the Secretary of the Interior. Nominations for the Commission would be solicited from the governors of each of the four states in the Floods region, as well as from tribal governments and public land managing agencies. An executive director and small support staff would be employed by the Commission to assist in the operation and management of the Floods Pathways interpretive route. Staff from the National Park Service would be available to the commission to assist in directing a coordinated interpretive approach to telling the Ice Age Floods story.

The primary role of the Commission would be to encourage a coordinated approach to telling the story of the Ice Age Floods along the Floods Pathways. Commission emphasis would be on a coordinated effort among public agencies having Floods features on their lands. Cooperation would be sought among tribal, state and federal geology professionals, education specialists, tourism and economic development officials, and private sector groups and individuals having an interest in the Floods.

A management plan would need to be prepared to help provide guidance regarding the future management and public use of the Floods Pathways and their resources. This plan would also articulate roles and responsibilities of the various partners.

An interagency Technical Committee (IAC) comprised of state, tribal, and federal agency professionals in the fields of geology, interpretation and education, and resource management would assist the Commission in operating and managing the Floods Pathways interpretive route.

The Ice Age Floods Institute would also plan an important role in the operation and development of a National Geologic Region and Floods Pathways. Among other functions, the Institute would seek out private funding support to complement Commission and other public expenditures. The Institute would also play a key role in coordinating educational efforts and in promoting tourism and economic opportunity.

- c. **Intergovernmental Agreements:** The Commission would enter into written agreements with state, tribal, and federal land managing agencies within the Floods region. This agreement would articulate how each entity would participate in the project and would provide a formal framework for coordination on matters related to education and interpretation, resource management, and scientific research. Partnership agreements could be formed with local governments and private sector entities to aid in the management and operation of the National Geologic Region and Floods Pathways interpretive route.
- d. **Landownership:** It is recommended that the Commission be given no authority to acquire land as part of its management responsibilities for the National Geologic Region and Floods Pathways. Local or state governments and nonprofit organizations may acquire small parcels of land from willing private owners for improvements such as roadside pullouts and wayside exhibits where public highway right-of-way proves inadequate.



- e. **Acquisition Costs:** There could be minor costs for acquisition of land for interpretive pullouts by local or state government entities.
- f. **Staff and Development Costs:** The Commission is expected to receive funds from the Department of the Interior via Congressional appropriation. These funds would support the necessary staff to provide overall management for the Floods Region and Floods Pathways interpretive route. This includes funding for an executive director and support staff along with routine office and travel expenses. However, the successful development, maintenance, and operation of the Floods Pathways interpretive route and associated facilities would require both public and private funding support for interpretive highway or trailhead wayside exhibits, information kiosks, visitor centers and contact facilities, trail brochures, and educational programs.

Funding for developing trail facilities identified through the comprehensive management planning process would be a joint responsibility of the Commission and partner agencies at the state and federal level. Private sector support could supplement these funds wherever appropriate. Potential funding sources such as TEA-21 enhancement funds and private sector support leveraged through the Ice Age Floods Institute could also be explored.

The federal share of costs estimated to implement option 4 is as follows:

- Estimated annual operating costs
(Commission staff and support) \$500,000
(NPS staff and support) \$100,000
- Estimated capitol development costs
(phased over several years) \$8 to \$12 million

3. Cost Sharing

Development and Annual Operation Costs are addressed as a range, in dollars, for each of the Management Options. It is too soon for the actual site design for specific interpretive areas within the Floods region. As a result, it is difficult to determine accurate costs for developing facilities at these areas. The amount of federal funding needed to cover development costs could be reduced contingent upon the level of participation by state and local governments and/or the private sector participate in the project.

One example of participation by the public/private sector is the development of an interpretive wayside on the Columbia River at Wallula Gap by the Port of Walla Walla. Another is a proposed improvement at Cabinet Gorge Dam being planned by AVISTA, a regional power company. Cabinet Gorge Dam is at the mouth of the Clark Fork River and was the site of the ice dam that created Glacial Lake Missoula.

The Port of Walla Walla's efforts are interesting because of the involvement of the public and private sector. The National Park Service, Ice Age Floods Institute, and members of the Mid-Columbia Study Zone Working Group assisted in the early planning for the new pullout and wayside exhibit on U.S. Highway 12 bordering the Columbia River. The Port will provide

for two interpretive panels on the Ice Age Floods at no cost. An interpretive planning contractor contacted Jones & Jones to inquire as to the feasibility of AVISTA enlarging their small interpretive facility at Cabinet Gorge Dam to provide for additional interpretation of the Floods. If the interpretive areas are expanded, it will be at no cost to the public.

These two examples illustrate what can be done given local understanding of interpretive needs while planning improvements, and illustrates the willingness of local governmental and private groups to participate in what they consider a worthy project. When one of the Management Options is selected, further detailed planning will be done to address specific development costs.



4. Financing the Project

Under Option One (No Action) there would be no significant expenditures in development or operating costs. Option Two (Quad-State Cooperation) would commit the four states to fund a commission and development costs with some possible assistance from others. The states and commission could decide jointly on the number of personnel needed to operate the tour routes.

Under Option Three (National Geologic Trail), the federal government would fund a portion of the development and operating costs of the Trail, including the National Park Service support staff. Partnership programs would be developed with each participating state using agreements, which spell out the degree of participation. Under Option Four (National Geologic Region), the federal government would fund a commission and support staff and a portion of the development costs. Additional field staff personnel costs would be borne by the four states under the terms of a cooperative agreement. Additional funds would be sought from the Federal Highway Administration and the private sector.

In the preliminary meetings discussing the draft study, the question of how the

proposed Ice Age Floods Region would be financed has been raised constantly. The answer is that it is within the purview of Congress and the legislatures of the four participating states to determine how the proposal could be funded. One of the major concerns by the Study Group is that the federal and state governments be required to absorb development and operating costs at the expense of current operations. However, cost sharing would equitably distribute the burden so that it was not substantial to any one entity. Funding support from private sector sources would also be sought.

The interpretive section of this study recommends the designation of "Gateway Communities" or entry points into the network of Floods Pathways. Twelve Gateway Communities were

identified as significant locations where the visitors could obtain information and learn about the interpretive opportunities within the Floods region. The majority of these communities already have Chamber of Commerce and/or Visitor and Convention Bureau Offices that could function as visitor facilities and would not need development money.

A key to implementing the interpretation of the Floods will be the construction of a new major visitor center in Missoula, Montana, smaller facilities at Cabinet Gorge, Idaho, and Wallula Gap, Washington; with improvements to existing centers at Sun Lakes-Dry Falls State Park, Washington, and the Columbia Gorge Discovery Center and Wasco County Historical Society, The Dalles, Oregon. The funding for development of these visitor

centers will have to be a collaborative effort involving the federal, state, and local governments, together with the public sector.

On a smaller scale, other significant interpretive sites will need upgrades of the existing facilities and the construction of new facilities in areas such as: Flathead Lake, Montana; Farragut State Park, Idaho; Frenchman Coulee, Washington; Palouse Falls State Park, Washington; Crown Point/Women's Forum State Park, Oregon; and within the Willamette Valley.

Regardless of the management approach selected, all share the cooperative/partnership concept. The difference lies in how many levels of government are involved. There are a variety of funding sources at different levels of government. For example, the federal government can

allocate funding through the Department of the Interior, Department of Agriculture, and the Department of Transportation's TEA-21 program. Federal funding would address both development as well as operational costs. Additional funds would come from the state and local governments and the private sector in partnership with the federal government.

Successful partnership programs are operating around the United States, and they reduce funding impacts and spread financial responsibility around. Over a period of years, the revenue generated by increased tourism could do much to offset the expenses of cooperatively operating an Ice Age Floods project. Donations from the private sector could be sought for specific project as well as grants from various businesses and foundations.



5. Economic and Tourism Potential of the Recommended Route

Much of the area included in the Ice Age Floods region has a continued reliance on agriculture, forest products, mining, selected manufacturing, transportation, and tourism. Except for the more urbanized areas of the region, the Information Age has not greatly affected the economy of the rural Pacific Northwest.

“Economists recognized the affect of variables on the economy, especially as they relate to travel and tourism. The U.S. Economic conditions determine the amount of travel, type of travel, and travel destinations. Under the current good economic times, people are traveling more, traveling by plane, and traveling to destinations further away. Worldwide economic conditions determine where to travel based on the exchange rate (best dollar value),” *Montana Bureau of Business and Economic Research, Outlook 2000*. Despite the fact that travel statistics for the 2000 travel season may be skewed because of the rapid increase of gasoline prices, various projections show a slow increase in travel across the Pacific Northwest.

Over the past decade, the term “Cultural Tourism” has been added to the travel lexicon. The tourism industry has divided tourism into various

subdivisions: day hike, nature/photo, special events, fishing, sporting events, boating, and cultural tourism. Visitors to the Ice Age Floods region can be counted as “Cultural Tourists,” but they also might be involved in some of the other types of tourism during their visit.

Some of the 1999 travel and economic figures for the four states are interesting:

- Nonresident travelers spent \$1.6 billion in Montana, directly supporting over 27,600 jobs and producing \$54 million in proprietary income.
- In Idaho, visitors spent \$1.7 billion, supporting 24,000 jobs and generating over \$134 million in local and state taxes.
- Travelers to Washington generated about \$10 billion, supporting 126,000 jobs and \$488 million in

state tax revenue and \$189 million for local jurisdictions.

Total travel spending in Oregon for 1999 was \$5.5 billion with 79,000 jobs directly related to travel. Tax receipts for the same period were \$198 million.

Using these figures, the tourism and economic picture for the four state area would be:

- Travel Spending \$18.8 billion
- Number of Travel-related Jobs 256,600
- Tax Revenue (total) \$1,053,000,000

Impacts on the economies of the four states within the Ice Age Floods region can best be summarized by the following quotes: Dean Runyan Associates stated, "The travel industry is one of the most important segments of the Idaho economy. . . ."; the Washington State Tourism Office said, ". . . a new study shows tourism is one of the state's growth industries." Oregon officials report, "The travel industry is an important component of the state's

economy. In some areas of the state, travel and tourism is the major industry."

With the addition of the Ice Age Floods tour route, the tourism industry gains an additional attraction that should result in increased visitation. The four participating states should be able to recoup their initial development cost investment from increased tax revenue in a relatively short period of time. The Oregon Tourism Commission, in their "Cultural Heritage Tourism in Oregon," brought up an interesting observation regarding the extension of the lengths of visits to Oregon. *"In 1998, 26.7 million travelers lengthened [emphasis added] their trip because of cultural events and activities—61% [emphasis added] added part of one day; 30% added one night [emphasis added]; 5% added two nights [emphasis added]; and 4% added three or more nights."* Cultural Heritage tourists tend to spend more money on their visits. The Oregon Tourism Commission noted: "They [the tourists] also spend more money per trip: \$210 more per trip than the average U.S. traveler; stay 1.4 nights longer; and are more likely to stay in commercial accommodations."



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The *Montana Business Quarterly* also noted: “Baby boomers don’t want Disney World,” says Sharalee Smith of the Fort Benton Restoration Society, a group that helped raise \$100,000 for a bronze memorial to a loyal and tireless hero of the town, Shep the dog. Her comments were reported in these pages last year, as were the results of an industry study which compared the spending habits of so-called cultural tourists with the average; the average tourist spent \$425 per person per trip, while the cultural tourist spent \$615.”

The Ice Age Floods tour route would allow residents and visitors to view real, tangible resources that directly relate to the natural heritage and settlement patterns of the region. The Floods tour route has the potential to generate revenue for both the public and private sector. With the commitment and assistance of the four state Departments of Tourism and Tourism Commission, along with the local Visitors and Convention Bureaus, the tour route could be a national and international attraction.

6. *The Future Role of the Ice Age Floods Institute*

Although it is now undergoing dramatic growth, the Ice Age Floods Institute is likely to remain a volunteer organization for some time to come. However, it is clear that some restructuring should be undertaken in order to adapt to the current situation of increased public interest in the Floods story. As that interest continues to grow, it will be important to develop an even broader, more effective, and representative Institute membership that reflects both the extent of the region and the diversity of the interested partners.

On an interim basis, pending the adoption of a formalized cooperative project, the Institute will try to coordinate Floods-related activities. In addition, the Institute will continue to:

- Function as a source for information and referral regarding activities related to the Floods.
- Conduct authoritative one-day field trips for the public.
- Provide a newsletter directed to interested agencies, organizations, businesses and individuals.
- Maintain an expert Scientific Advisory Panel that can provide technical review to assist individuals and organizations in their interpretive projects.

- Encourage local business organizations to explore possibilities for developing Floods-related projects in their respective areas.
- Develop contacts with agencies, local governments, educational institutions and organizations with an interest in natural history, outdoor recreation and tourism.

In addition, the Institute is in a strong position to define new projects that will attract private and corporate funding and sponsorship, including:

- Enhancing the Institute website as an information resource.
- Developing materials for interpretation, interpretive training,



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curricular use, sightseeing, and other purposes.

- Conducting field seminars.
- Conducting symposia on new and continuing research topics.
- Reprinting significant out-of-print historical materials (reports, papers, maps).

As another instance of partnering, the Northwest Interpretive Association could cooperate in sales and distribution of materials in the region.

Looking a little further into the future, the Institute should continue to establish a track record that will serve as a basis for submitting grant applications to fund major projects. It is hoped that within a

few years the group can achieve a level of income from memberships, programs, contributions and sponsorships that will make it possible to employ paid staff.

On the basis of this Study, the Institute will be preparing for the long-sought recognition of the Floods region as a nationally recognized area, in which many agencies will be actively involved in a collaborative interpretive program. When that happens, the Institute will be ready to work as the principal private-sector partner and affiliated association. Even if the immediate outcome of the Study should be much less positive than is hoped for, the Institute will continue its work to develop public awareness and understanding of the Floods, with a special concern for the authoritative coordination of interpretive presentations.